

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-66 (Cancelled).

Claim 67. (New) An injectable particle(s), that comprise(s) a biodegradable polymer(s); and one or more of an NSAID(s), a local anesthetic(s) or a narcotic analgesic(s).

Claim 68. (New) The particle(s) of claim 1, comprising a biodegradable polymer(s), and an NSAID(s).

Claim 69. (New) The particle(s) of claim 2, further comprising a local anesthetic(s).

Claim 70. (New) The particle(s) of claim 2, further comprising a narcotic analgesic(s).

Claim 71. (New) The particle(s) of claim 4, further comprising a local anesthetic(s).

Claim 72. (New) The particle(s) of claim 1, wherein the NSAID(s) is released, upon hydrolysis, from the polymer(s).

Claim 73. (New) The particle(s) of claim 1, wherein local anesthetic and a narcotic analgesic are released, upon hydrolysis, from the polymer(s).

Claim 74. (New) The particle(s) of claim 1, wherein the polymer(s) comprise(s) an anhydride, ester, thioester, amide, anhydride, carbonate or carbamate polymer(s).

Claim 75. (New) The particle(s) of claim 1, wherein the polymer(s) comprise(s) one or more units of chemical formula

-R₁-A-L-A- (I),
-R₂-A-L-A-R₃-A-L-A- (II), or
-C(=O)R₄-X-L-X-R₄-C(=O)-O- (III)

wherein

each R₁, R₂, R₃ or R₄, independently, comprises one or more NSAID(s);

each A or X, independently, comprises ester, thioester, or amide; and

each L, independently, comprises a linker.

Claim 76. (New) The particle(s) of claim 8, wherein each L, independently, comprises an aliphatic or aromatic linker.

Claim 77. (New) The particle(s) of claim 8, wherein each L, independently, comprises a biologically active linker.

Claim 78. (New) The particle(s) of claim 1, wherein each aliphatic or aromatic linker, independently, comprises a divalent (C₁-C₂₅) hydrocarbon, which may be branched, unsaturated, or substituted by (-O-), (-NR-), (C₁-C₆) alkoxy, (C₃-C₆) cycloalkyl, (C₁-C₆) alkanoyl, (C₁-C₆) alkanoyloxy, (C₁-C₆) alkoxycarbonyl, (C₁-C₆) alkylthio, azido, cyano, nitro, halo, hydroxy, oxo, carboxy, aryl, aryloxy, heteroaryl or heteroaryloxy.

Claim 79. (New) The particle(s) of claim 8, wherein each L, independently, comprises a divalent C₆, C₇, C₈, C₉ or C₁₀ hydrocarbon.

Claim 80. (New) The particle(s) of claim 8, wherein each L, independently, comprises about 25 dalton to about 400 dalton.

Claim 81. (New) The particle(s) of claim 8, wherein each L, independently, comprises a divalent (C₁-C₂₅) hydrocarbon, which may be branched, unsaturated or substituted by (-O-), (-NR-), (C₁-C₆)alkoxy, (C₃-C₆) cycloalkyl, (C₁-C₆) alkanoyl, (C₁-C₆) alkanoyloxy, (C₁-C₆) alkoxycarbonyl, (C₁-C₆) alkylthio, mercapto, amine, carboxyl, azido, cyano, nitro, halo, hydroxy, oxo, carboxy, aryl, aryloxy, heteroaryl or heteroaryloxy.

Claim 82. (New) The particle(s) of claim 8, wherein each L, independently, comprises a peptide(s) or an amino acid(s).

Claim 83. (New) The particle(s) of claim 8, wherein each L, independently, comprises a divalent (C₃-C₁₅) hydrocarbon, which may be branched, unsaturated or substituted by (-O-), (-NR-), (C₁-C₆) alkoxy, (C₃-C₆) cycloalkyl, (C₁-C₆) alkanoyl, (C₁-C₆) alkanoyloxy, (C₁-C₆) alkoxycarbonyl, (C₁-C₆) alkylthio, mercapto, amine, carboxyl, azido, cyano, nitro, halo, hydroxy, oxo, carboxy, aryl, aryloxy, heteroaryl or heteroaryloxy.

Claim 84. (New) The particle(s) of claim 16, wherein each L substituent(s), independently, is(are) selected for modifying the polymer(s) properties by branching, cross-linking or appending one or more biologically or pharmaceutically active molecule(s).

Claim 85. (New) The particle(s) of claim 16, wherein each L substituent(s), independently, is(are) selected for changing the polymer solubility, or affecting the polymer(s) biodistribution upon administration or application.

Claim 86. (New) The particle(s) of claim 1, wherein the NSAID(s), independently, comprise(s) 3-amino-4-hydroxybutyric acid, aceclofenac, alminoprofen, amfenac, bromfenac, bromosaligenin, bumadizon, carprofen, diclofenac, diflunisal, ditazol, enfenamic acid, etodolac,

etofenamate, fendosal, fepradinol, flufenamic acid, gentisic acid, glucamethacin, glycol salicylate, meclofenamic acid, mefenamic acid, mesalamine, niflumic acid, olsalazine, oxaceprol, S-adenosylmethionine, salicylic acid, salsalate, sulfasalazine or tolfenamic acid.

Claim 87. (New) The particle(s) of claim 1, wherein the NSAID(s) comprise(s) a cyclooxygenase-2 (COX-2) enzyme inhibitor(s).

Claim 88. (New) The particle(s) of claim 1, wherein the COX-2 enzyme inhibitor(s) comprise(s) one or more of celecoxib, etoricoxib, lumiracoxib, meloxicam, onconoxib, parecoxib, rofecoxib, tilmacoxib or valdecoxib.

Claim 89. (New) The particle(s) of claim 1, wherein the NSAID(s) comprise(s) salicylic acid.

Claim 90. (New) The particle(s) of claim 1, wherein the local anesthetic(s), independently, comprise(s) benzocaine, bupivacaine, butacaine, butanilicane, carticaine, chloroprocaine, cocaine, cyclomethycaine, dibucaine, diperocaine, etidocaine, fomocaine, isobucaine, ketamine, leucinocaine, lidocaine, lignocaine, mepivacaine, meprylcaine, myrteccaine, octacaine, oxybuprocaine, parethoxycaine, phenacaine, piperocaine, pramoxine, prilocaine, procaine, propanocaine, propoxycaine, proxymetacaine, pyrroccaine, ropivacaine, tetracaine or tolycaine.

Claim 91. (New) The particle(s) of claim 1, wherein the narcotic analgesic(s), independently, comprise(s) alfentanil, bremazocine, buprenorphine, butorphanol, codeine, CTOP, [d-Ala²] deltorphin I, [d-Ala², Glu⁴] deltorphin (deltorphin II), DADL, DALCE, DAMGO, dihydrocodeine, dihydrocodeinone, diphenoxylate, DPDPE, DSLET, dynorphin A,

dynorphin B, endomorphin-1, endomorphin-2, β -endorphin, FK-33824, [Leu⁵] enkephalin, [Met⁵] enkephalin, ethylketocyclazocine, etorphine, fentanyl, heroin, hydrocodone, hydromorphone, levallorphan, levorphanol, meperidine, methadone, morphiceptin, morphine, morphine-6-glucuronide, nalbuphine, α -neoendorphin, β -neoendorphin, orphinan FQ/nociceptin, PL-017, oxycodone, oxymorphone, pentazocine, propoxyphene, remifentanil, spiradoline, sufentanil, tramadol, U50,488 or U69,593.

Claim 92. (New) The particle(s) of claim 1, wherein the local anesthetic(s) comprise(s) lidocaine.

Claim 93. (New) The particle(s) of claim 1, wherein the local anesthetic(s), independently, is(are) present in an amount of about 0.1% wt/wt to about 10% wt/wt.

Claim 94. (New) The particle(s) of claim 1, wherein the local anesthetic(s), independently, comprise(s) a free base(s) or a pharmaceutical salt(s) thereof.

Claim 95. (New) The particle(s) of claim 27, wherein the pharmaceutical salt(s) of the local anesthetic(s), independently, comprise(s) sulfate, phosphate, acetate, tartrate or hydrochloride.

Claim 96. (New) The particle(s) of claims 1, wherein the narcotic analgesic(s) comprise(s) morphine.

Claim 97. (New) The particle(s) of claim 1, wherein the narcotic analgesic(s), independently, is(are) present in an amount of about 1% wt/wt to about 30% wt/wt.

Claim 98. (New) The particle(s) of claim 1, wherein the narcotic analgesic(s), independently, is(are) present as a free base, or as a pharmaceutical salt(s).

Claim 99. (New) The particle(s) of claim 31, wherein the pharmaceutical salt(s) of the narcotic analgesic(s), independently, comprise(s) sulfate, phosphate, acetate, tartrate or hydrochloride.

Claim 100. (New) The particle(s) of claim 1, comprising about 0.001 micron to about 100 micron particle(s) as determined by dynamic light scattering.

Claim 101. (New) The particle(s) of claim 1, which comprise a microsphere(s).

Claim 102. (New) The microsphere(s) of claim 34, comprising about 0.001 micron to about 100 micron particle(s) as determined by dynamic light scattering.

Claim 103. (New) A microsphere(s), comprising a polymer(s) that upon hydrolysis releases one or more of salicylic acid or diflunisal.

Claim 104. (New) The microsphere(s) of claim 36, further comprising lidocaine or morphine.

Claim 105. (New) The microsphere(s) of claim 36, further comprising lidocaine.

Claim 106. (New) The microsphere(s) of claim 36, further comprising morphine.

Claim 107. (New) The microsphere(s) of claim 39, further comprising lidocaine.

Claim 108. (New) A pharmaceutical composition, comprising a plurality of the particles of claim 1, and a pharmaceutically acceptable carrier.

Claim 109. (New) The composition of claim 41, comprising a systemic formulation.

Claim 110. (New) The composition of claim 41, comprising an injectable formulation.

Claim 111. (New) The composition of claim 41, comprising a site-of-pain or site-of-inflammation formulation.

Claim 112. (New) A method of treating pain or inflammation or to prevent or reduce swelling, or a condition associated with pain, inflammation or swelling at a site, comprising administering or applying to the site an analgesic, anti-inflammatory or anti-swelling effective amount of the particle(s) of claim 1 or composition or formulation thereof.

Claim 113. (New) The method of claim 45, wherein the pain or inflammation or condition associated with pain or inflammation comprises spinal stenosis, bursitis, tendonitis, epicondylitis, fibromyalgia, chronic foot and ankle pain, calcaneal spur syndrome, neuralgia, metatarsalgia, metatarsophalangeal articulation, rheumatoid arthritis or osteoarthritis.

Claim 114. (New) The method of claim 45, wherein the swelling is associated with central nervous system tissue.

Claim 115. (New) The method of claim 45, wherein the administration or application is conducted systemically, or by injection.

Claim 116. (New) The method of claim 45, wherein the injection is conducted locally at or near the site.

Claim 117. (New) The method of claim 45, wherein the inflammation is associated with the nervous system or surrounding tissue.

Claim 118. (New) The method of claim 50, wherein the nervous system tissue inflammation is associated with or following injury.